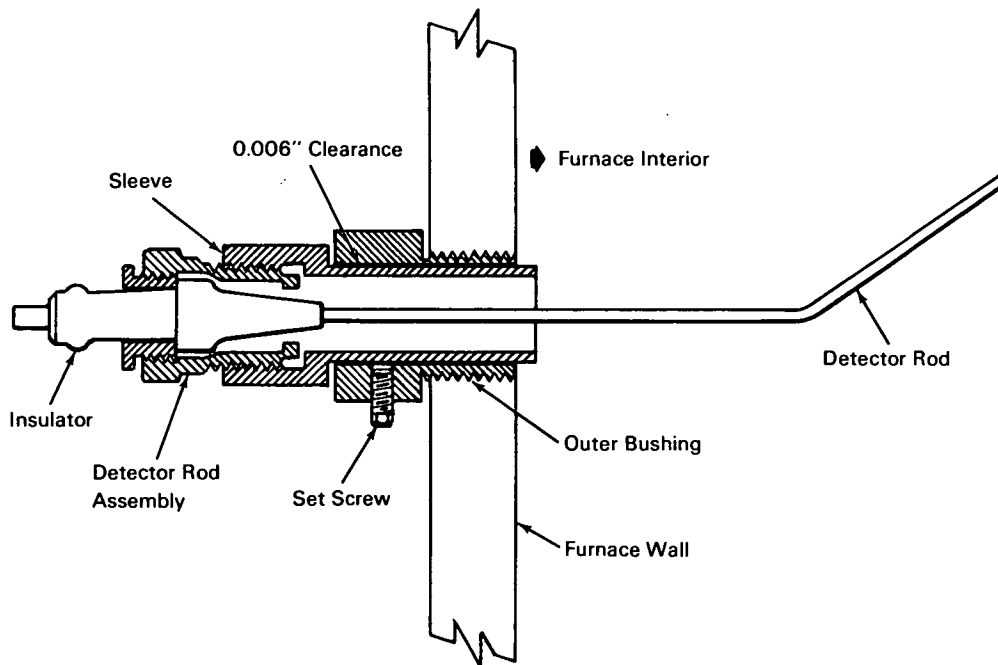


NASA TECH BRIEF



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Mounting Facilitates Removal and Installation of Flame-Detector Rods

**The problem:**

To devise a flame-detector-rod holder that can be easily removed from the wall of a gas-fired furnace (operating temperature 2300°F) for maintenance or replacement of the detector rod without requiring shutdown of the furnace. These detector rods, which are used to shut off the gas supply to pilot flames inside the furnace in the event that the pilots fail to light or remain lit, must be removed and cleaned after every second or third run of the furnace.

The solution:

A holder consisting of an externally threaded outer bushing, a sleeve which is held inside the outer bushing by means of a set screw, and a detector rod assembly which screws into the sleeve.

How it's done:

The outer bushing is screwed into the outer shell of the furnace in the conventional manner. The inner sleeve and the detector-rod assembly are inserted into the outer bushing and held in place by tightening the

(continued overleaf)

an old fashioned book that is clamped shut when not being used.

Notes:

1. Use of the glass tubing halves and silicone seals eliminates magnetic-field interference with the electron beam.
2. Progress and quality of the weld can be continually observed through the glass tubing.
3. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama, 35812
Reference: B66-10151

Patent status:

No patent action is contemplated by NASA.

Source: Willard J. Kressin
of North American Aviation, Inc.
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